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SEQUENCE LISTING

<110> DANIELL, HENRY

<120> GENETIC ENGINEERING OF COTTON TO INCREASE FIBER  
STRENGTH, WATER ABSORPTION AND DYE BINDING

<130> 1483-R-00

<140> 09/251,638

<141> 1999-02-17

<150> 60/074,997

<151> 1998-02-17

<160> 22

<170> PatentIn Ver. 3.3

<210> 1

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
Peptide

<400> 1

Val Pro Gly Val Gly  
1 5

<210> 2

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
Peptide

<400> 2

Gly Val Gly Val Pro  
1 5

<210> 3

<211> 50

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
Peptide

<400> 3  
Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
1 5 10 15  
  
Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
20 25 30  
  
Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly  
35 40 45  
  
Val Pro  
50

<210> 4  
<211> 100  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
Peptide

<400> 4  
Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
1 5 10 15  
  
Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
20 25 30  
  
Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly  
35 40 45  
  
Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val  
50 55 60  
  
Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
65 70 75 80  
  
Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
85 90 95  
  
Val Gly Val Pro  
100

<210> 5  
<211> 605  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
Peptide

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<222> (1)..(605)
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<400> 5
Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
    1           5           10           15

Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
    20          25          30

Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
    35          40          45

Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
    50          55          60

Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
    65          70          75          80

Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
    85          90          95

Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
    100         105         110

Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
    115         120         125

Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
    130         135         140

Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
    145         150         155         160

Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
    165         170         175

Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
    180         185         190

Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
    195         200         205

Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
    210         215         220

Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
    225         230         235         240

Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
    245         250         255

Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
    260         265         270
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Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly  
275 280 285

Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val  
290 295 300

Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
305 310 315 320

Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
325 330 335

Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
340 345 350

Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly  
355 360 365

Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val  
370 375 380

Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
385 390 395 400

Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
405 410 415

Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
420 425 430

Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly  
435 440 445

Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val  
450 455 460

Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
465 470 475 480

Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
485 490 495

Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
500 505 510

Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly  
515 520 525

Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val  
530 535 540

Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
545 550 555 560

Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
565 570 575

Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
580 585 590

Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
595 600 605

<210> 6  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 6  
Gly Val Gly Phe Pro  
1 5

<210> 7  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 7  
Gly Glu Gly Phe Pro  
1 5

<210> 8  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 8  
Gly Asp Gly Phe Pro  
1 5

<210> 9  
<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Oligonucleotide

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<400> 9
gaggatccag gcgttgggtt accgggtgtt ggcttcccg 39

<210> 10
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Oligonucleotide

<400> 10
ctccttaggtc cgcaacccca tggcccacaa ccgaaggc 39

<210> 11
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Peptide

<400> 11
Gly Val Gly Val Pro Gly Val Gly Phe Pro
    1           5             10

<210> 12
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Oligonucleotide

<400> 12
ggtgamggtt tcccgccgt tggtgtgcgg 30

<210> 13
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Oligonucleotide

<400> 13
ccactkccaa agggccccggc aaccacacgg c 31

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<210> 14  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Peptide

<220>  
<221> MOD\_RES  
<222> (2)  
<223> Asp or Glu

<400> 14  
Gly Xaa Gly Phe Pro Gly Val Gly Val Pro  
1 5 10

<210> 15  
<211> 43  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Oligonucleotide

<400> 15  
ggtgttaggct ttccgggtttc ggattcccaag gcgttggatc cag 43

<210> 16  
<211> 53  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 16  
Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
1 5 10 15

Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
20 25 30

Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
35 40 45

Gly Val Pro Gly Val  
50

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<210> 17
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Oligonucleotide

<400> 17
      cgggatccag gcgttggt          18

<210> 18
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Oligonucleotide

<400> 18
      ccacatccga aaggccccaaa gcctaagggt ccgcaaccta ggtc          44

<210> 19
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Peptide

<400> 19
      Gly Val Gly Phe Pro Gly Phe Gly Phe Pro
      1           5             10

<210> 20
<211> 85
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Oligonucleotide

<400> 20
      gttccgggtg ttggtgttacc gggtgttggt gtgccgggtg ttggtgttcc gggcgttaggc 60
      gtaccgggcg taggcgtgcc gggcg          85

<210> 21
<211> 85
<212> DNA
<213> Artificial Sequence

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<220>  
<223> Description of Artificial Sequence: Synthetic  
Oligonucleotide

<400> 21  
acctacacccc ggaacgcccc caccggcac gcccacgccc ggtacgccc cgcccggaac 60  
gcctacgccc ggcacgccta cgccc 85

<210> 22  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
Oligonucleotide

<400> 22  
ccaggtgttg gatccg 16